Public Notice

US Army Corps of Engineers®

Nashville District

Public Notice No. **03-39** Date: May 1, 2003

Application No. **200100297**

Please address all comments to:
Nashville District Corps of Engineers, Regulatory Branch
3701 Bell Road, Nashville, TN 37214

JOINT PUBLIC NOTICE
US ARMY CORPS OF ENGINEERS
AND
STATE OF TENNESSEE

SUBJECT: Proposed Excavation for Recessed Commercial Marina

TO ALL CONCERNED: The application described below has been submitted for a Department of the Army Permit pursuant to **Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act** (CWA) for the discharge of fill material into waters of the United States. Before a permit can be issued, certification must be provided by the state of Tennessee, pursuant to **Section 401(1)(1) of the CWA**, that applicable water quality standards will not be violated. By copy of this notice, the applicant hereby applies for the required certification**.**

APPLICANT: Cumberland Yacht Harbor
300 Peabody Street
Nashville, Tennessee 37210

LOCATION: Mill Creek Mile 0.2, a tributary to Cumberland River Mile 194.5L, Cheatham Lake, Davidson County, Tennessee (Nashville East Quad; lat 36-1-2.3160; lon 86-42-24.3360)

DESCRIPTION: The proposed work would involve excavating a recessed harbor along Mill Creek for a commercial marina. Approximately 600,000 cubic yards of earth material would be excavated from a 12.8-acre upland field for the marina harbor. Approximately 14,028 cubic yards of material would be dredged from Mill Creek to obtain adequate navigation depth. The excavation would be constructed to bottom elevation 377.0', which would provide a minimum 8' harbor depth at the Normal Pool Elevation 385.0' for Cheatham Lake. Mill Creek would be dredged at the confluence with the Cumberland River and another area within the harbor to achieve a 7' depth. The excavated/dredged material would be reused onsite and the excess material disposed in an upland, contained site. The disposal site is currently an existing borrow pit located on property just west of Mill Creek and from the project site. A bridge would be constructed over Mill Creek to transport the disposal material. This bridge would remain

in place after construction and used as a pedestrian bridge to accommodate a public greenway. The construction of the harbor would involve impacting 2,900 linear feet of the east side of Mill Creek. The west side of Mill Creek would be left undisturbed except for some areas requiring bank stabilization activities. The excavation would be performed for the installation of commercial marina facilities which would include 225 public boat slips and transient docks. Excavation of the harbor basin consists of the following operations: mass excavation of the harbor basin, construction of harbor and flood walls, grading for harbor infrastructure and building sites, utility installation, and harbor flooding. Material would be excavated from the harbor basin in the dry by leaving a levee, approximately 10' wide, between Mill Creek and the work area. During the excavation, harbor and flood wall construction would begin to provide stabilization prior to filling the harbor. Upon completion of all the construction activities below the normal pool elevation, a small portion of the levee would be removed to flood the harbor basin. The remaining levee would then be removed by placing the material into an over-excavated spoil area along the levee. Erosion and sediment control measures to be installed would include but not limited to silt fencing, sedimentation pond, straw bales, riprap, erosion matting, silt curtains, and temporary seeding. Floating silt curtains would be installed in Mill Creek during excavation/dredging activities at the upstream and downstream project boundaries. The sedimentation pond outfall would be within the proposed silt curtains.

The public marina activities would be supported by typical marina services, such as fuel and sewage pump-out services, a ship/convenience store and public restroom. The upland development would involve private condominiums and a commercial/retail development supported by the transient/guest docks.

The applicant has proposed mitigation for the loss of the 2,900 linear feet of riparian vegetation along the Mill Creek bank, which includes onsite bank stabilization activities and public recreation and habitat conservation. Bank stabilization activities would involve the placement of 2,387 linear feet of riprap and 2,704 linear feet of bio-remediation in proximity of the site within Mill Creek. In addition, 8.6 acres of the property has been set aside for public passive recreation and habitat conservation. Of the 8.6 acres, 6.1 acres would be a public greenway and support areas. The greenway will include a trail head, paved 12' wide walking/riding surface, public parking and a pedestrian only bridge across Mill Creek. This project has been presented to the Metro Nashville Park Greenway department. See the attached proposed Mitigation proposal.

Plans of the proposed work are attached to this notice.

The decision whether to issue a permit will be based on an evaluation of the probable impacts including cumulative impacts of the activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the work must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the work will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands,

cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. In addition, the evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency, under authority of Section 404(b)(1) of the CWA (40 CFR Part 230). A permit will be granted unless the District Engineer determines that it would be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

An Environmental Assessment will be prepared by this office prior to a final decision concerning issuance or denial of the requested Department of the Army Permit.

A Phase I Archaeological Survey was performed in April 2001, for the proposed project site, by TRC Garrow Associates, Inc. The survey was performed on the entire 40-acre tract of land proposed for development. The survey concluded that the limited evidence of prehistoric activity in this locale does not meet the requirements for recording it as an official archaeological site according to State of Tennessee Division of Archaeology standards. Therefore, no additional archaeological work is required for the development of the proposed project. The Tennessee Historical Commission has previously reviewed and concurred with the survey report conclusions by letter dated May 9, 2001.

An Aquatic Assessment (AA) was prepared for the project, by LAW Engineering and Environmental Services, Inc., in September 2002 within Mill Creek. The AA was conducted to evaluate 1) the presence or absence of the federally endangered Nashville crayfish *(Orconectes shoupi);* 2) benthic macroinvertebrate populations in the project area compared to those inhabiting upstream and downstream locations; and 3) fish populations in the project area compared to those inhabiting upstream and downstream locations. The AA results indicate that suitable habitat for the Nashville crayfish does not occur adjacent to the proposed project site. It appears that construction at the site would have little chance to affect crayfish populations that occur approximately 4,000 feet upstream. It is unclear whether the Nashville crayfish could ever become re-established in the most downstream section of Mill Creek. However, based on the plans, it appears that the harbor construction will result in a new area of bedrock and broken

rock substrate that would provide more suitable crayfish habitat than the existing silt and soil substrate currently dominating lower Mill Creek. The AA will be coordinated with the U.S. Fish and Wildlife Service for their review. In addition, based on available information, the proposed work will not destroy or endanger any other federally-listed threatened or endangered species or their critical habitats, as identified under the Endangered Species Act.

Other federal, state, and/or local approvals required for the proposed work are as follows:

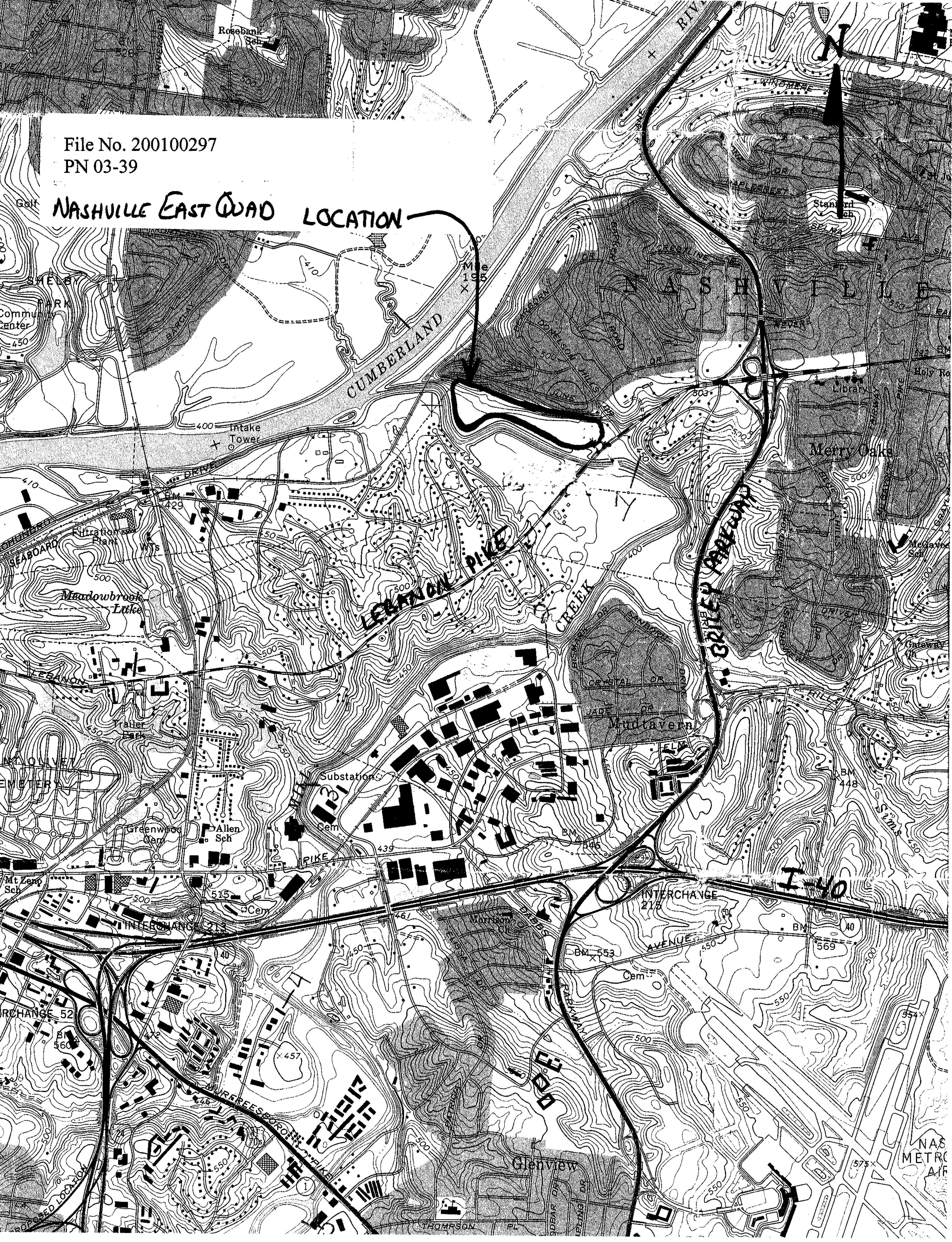
a. Water Quality Certification from the state of Tennessee is required for the proposed work in accordance with Section 401(a)(1) of the Clean Water Act.

b. Federal Emergency Management Agency (FEMA) "Letter of Map Revision" is required for the fill within the floodplain from Metro Nashville.

c. Stormwater Permit from Metro Nashville.

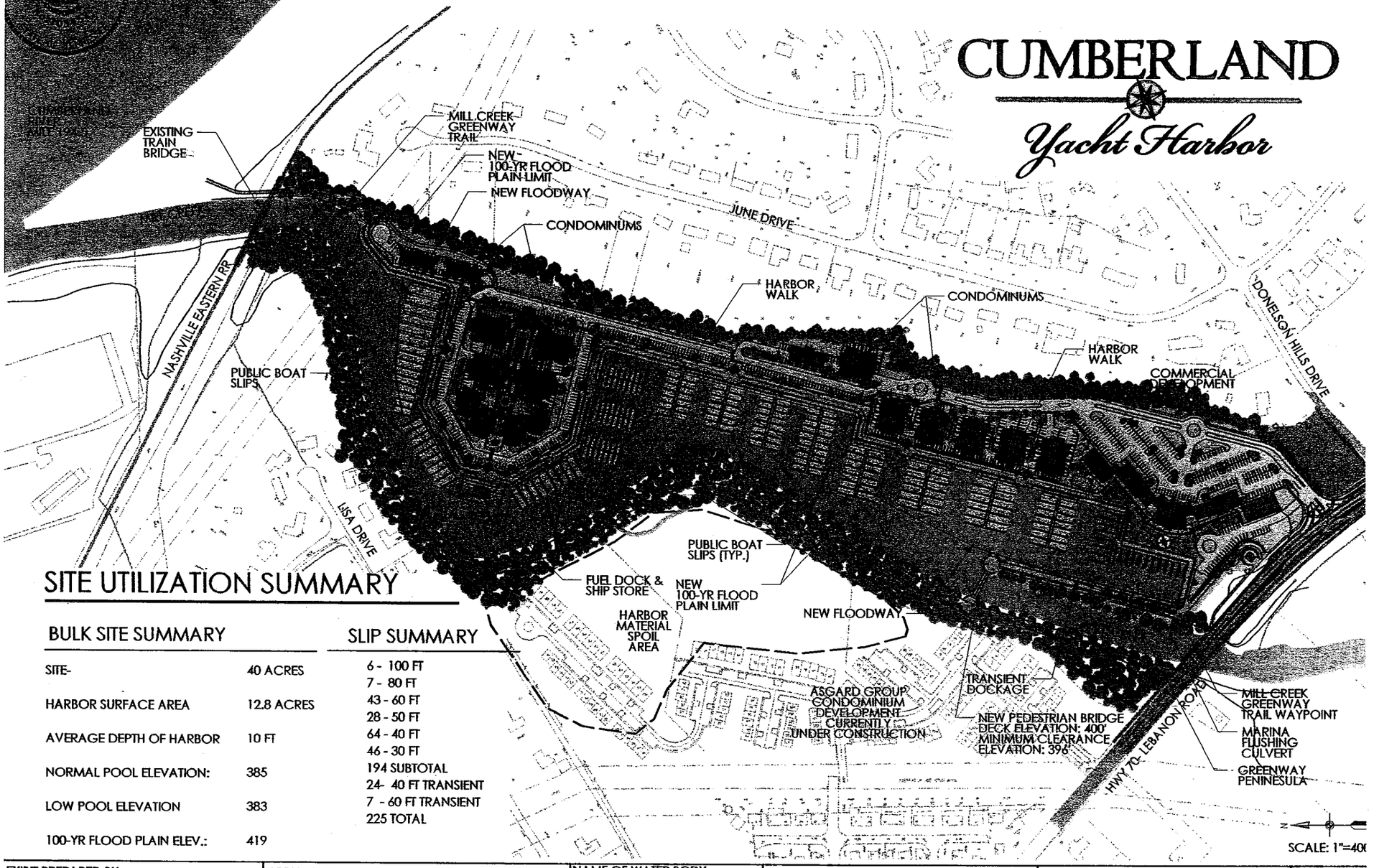
Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

Written statements received in this office on or before June 2, 2003, will become a part of the record and will be considered in the determination. Any response to this notice should be directed to the Regulatory Branch, Attention: Amy Robinson, at the above address, telephone (615) 369-7509.


File No. 200100297
PN 03-39
NASHVILLE EAST QUAD
LOCATION
N
CUMBERLAND
NASHVILLE
Intake Tower
Filtration Plant
Meadowbrook Lake
LEBANON PIKE
BRILEY PARKWAY
CREEK
Merry Oaks
Library
Mudtavern
Substation
Trailer Park
Greenwood Cem
Allen Sch
INTERCHANGE 215
INTERCHANGE 216
I-40
Glenview
THOMPSON PL
AVENUE
Standard Sch
Rosebank Sch

File No. 200100297
PN 03-39

CUMBERLAND Yacht Harbor



SITE UTILIZATION SUMMARY

BULK SITE SUMMARY

SITE-	40 ACRES
HARBOR SURFACE AREA	12.8 ACRES
AVERAGE DEPTH OF HARBOR	10 FT
NORMAL POOL ELEVATION:	385
LOW POOL ELEVATION	383
100-YR FLOOD PLAIN ELEV.:	419

SLIP SUMMARY

6 - 100 FT
7 - 80 FT
43 - 60 FT
28 - 50 FT
64 - 40 FT
46 - 30 FT
194 SUBTOTAL
24- 40 FT TRANSIENT
7 - 60 FT TRANSIENT
225 TOTAL

SCALE: 1"=40

EXIBIT PREPARED BY:
MANOUS CONSULTING & DESIGN
V:(615)444-6207, F:(615)444-0853
POC: MARK KAWCZYNSKI, P.E.
Mark@ManousDesign.com

APPLICANT'S NAME:
CUMBERLAND YACHT HARBOR LLC.

NAME OF WATER BODY:
CHEATHAM RESEVIOR

RIVER MILE:
CUMBELAND

COUNTY, STATE
DAVIDSON, TN

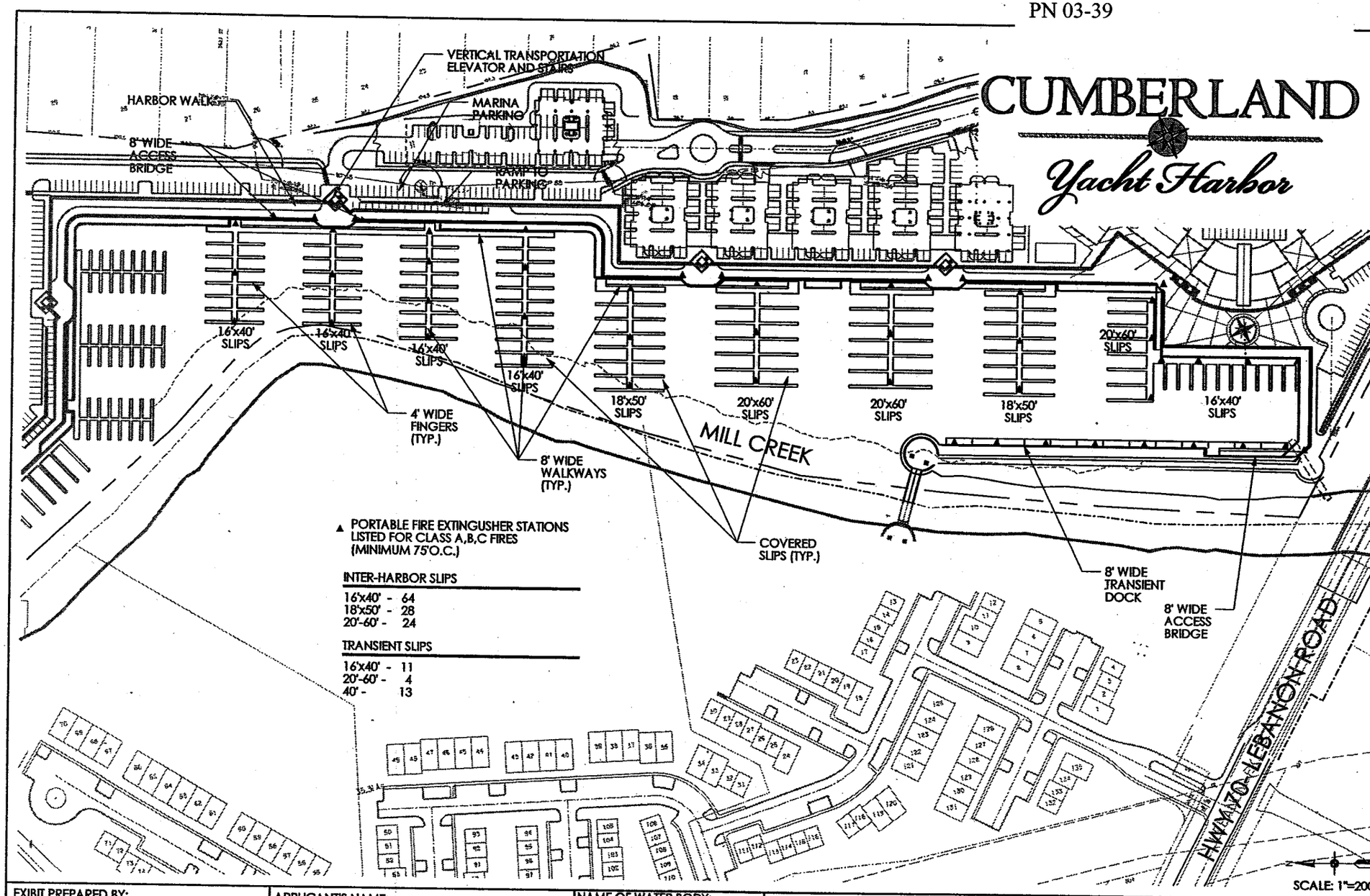
PROJECT NAME:
CUMBERLAND YACHT HARBOR

EXIBIT TITLE:
OVERALL DEVELOPMENT PLAN

DATE:
3-07-200

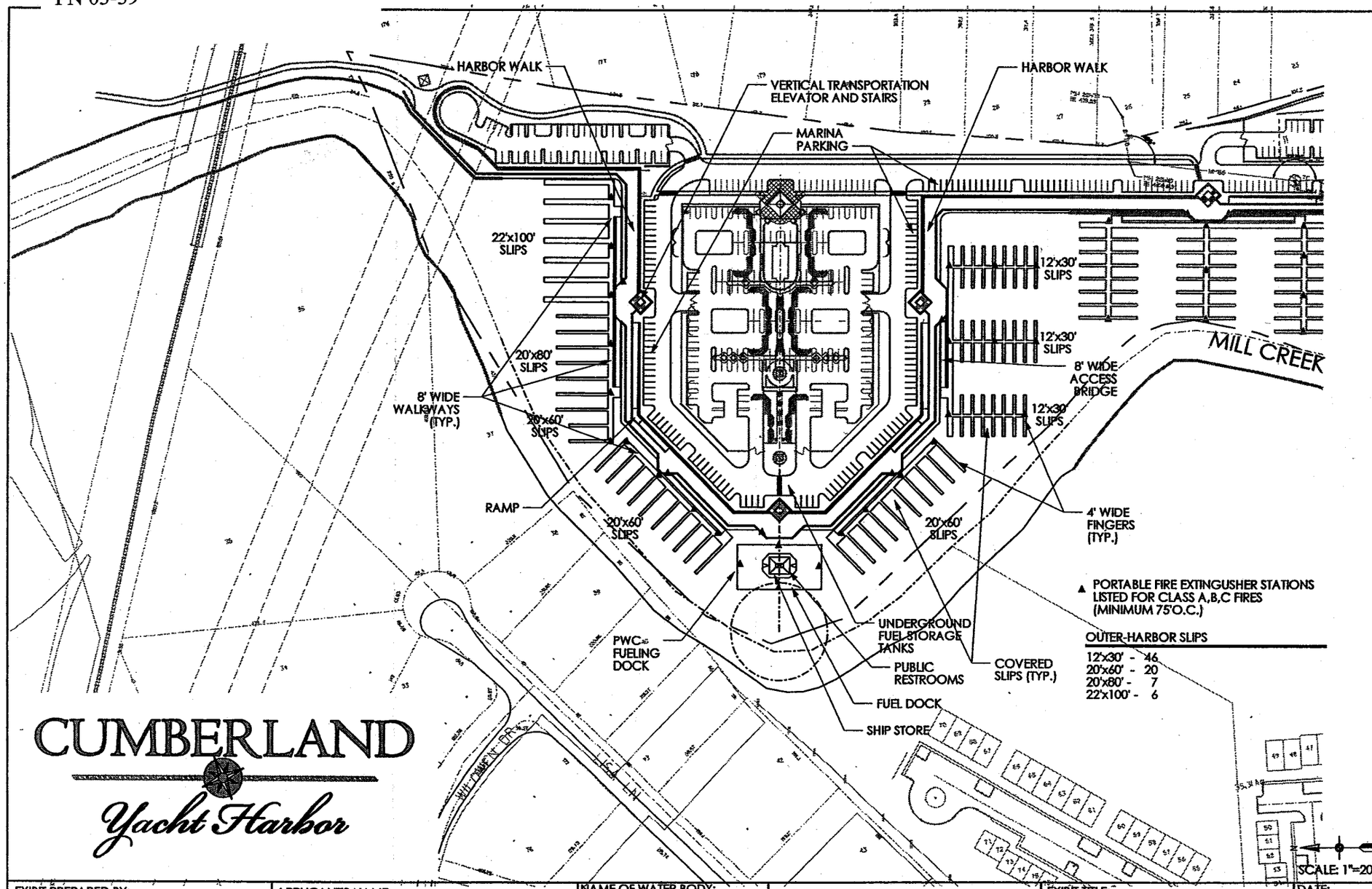
EXIBIT
2

File No. 200100297
PN 03-39



EXIBIT PREPARED BY: MANOUS CONSULTING & DESIGN V:(615)444-6207, F:(615)444-0853 POC: MARK KAWCZYNSKI, P.E. Mark@ManousDesign.com	APPLICANT'S NAME: CUMBERLAND YACHT HARBOR LLC.	NAME OF WATER BODY: CHEATHAM RESEVIOR RIVER MILE: CUMBELAND RIVER 194.5 COUNTY, STATE: DAVIDSON, TN	PROJECT NAME: CUMBERLAND YACHT HARBOR	EXIBIT TITLE: INTER-HARBOR DOCK LAYOUT	DATE: 3-7-2003 EXIBIT 2A of 2

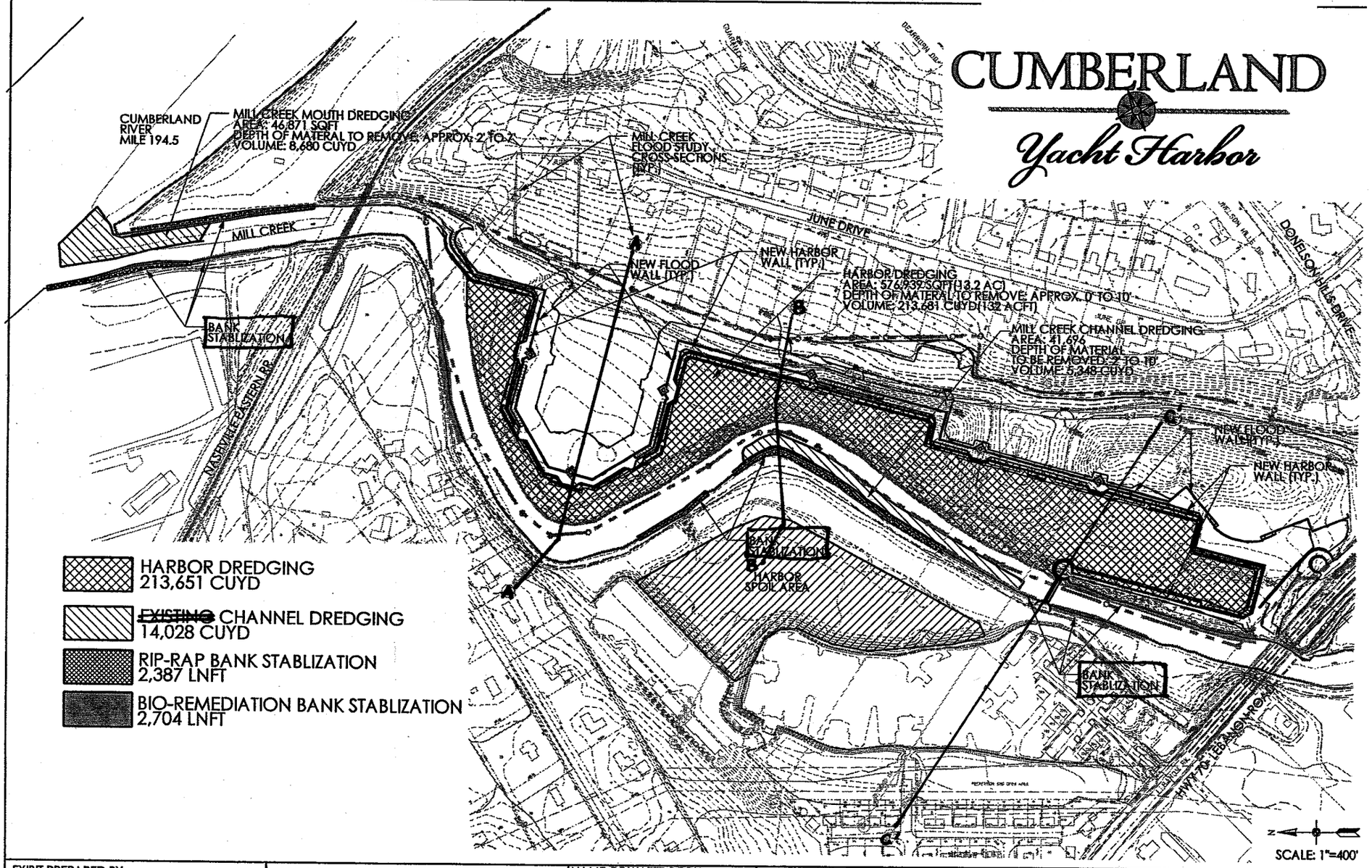
File No. 200100297
PN 03-39



EXIBIT PREPARED BY: MANOUS CONSULTING & DESIGN V:(615)444-6207, F:(615)444-0853 POC: MARK KAWCZYNSKI, P.E. Mark@ManousDesign.com	APPLICANT'S NAME: CUMBERLAND YACHT HARBOR LLC.	NAME OF WATER BODY: CHEATHAM RESEVIOR RIVER MILE: CUMBELAND RIVER 194.5 COUNTY, STATE: DAVIDSON, TN	PROJECT NAME: CUMBERLAND YACHT HARBOR	EXIBIT TITLE: OUTER-HARBOR DOCK LAYOUT	DATE: 3-7-2003 EXIBIT 2B of

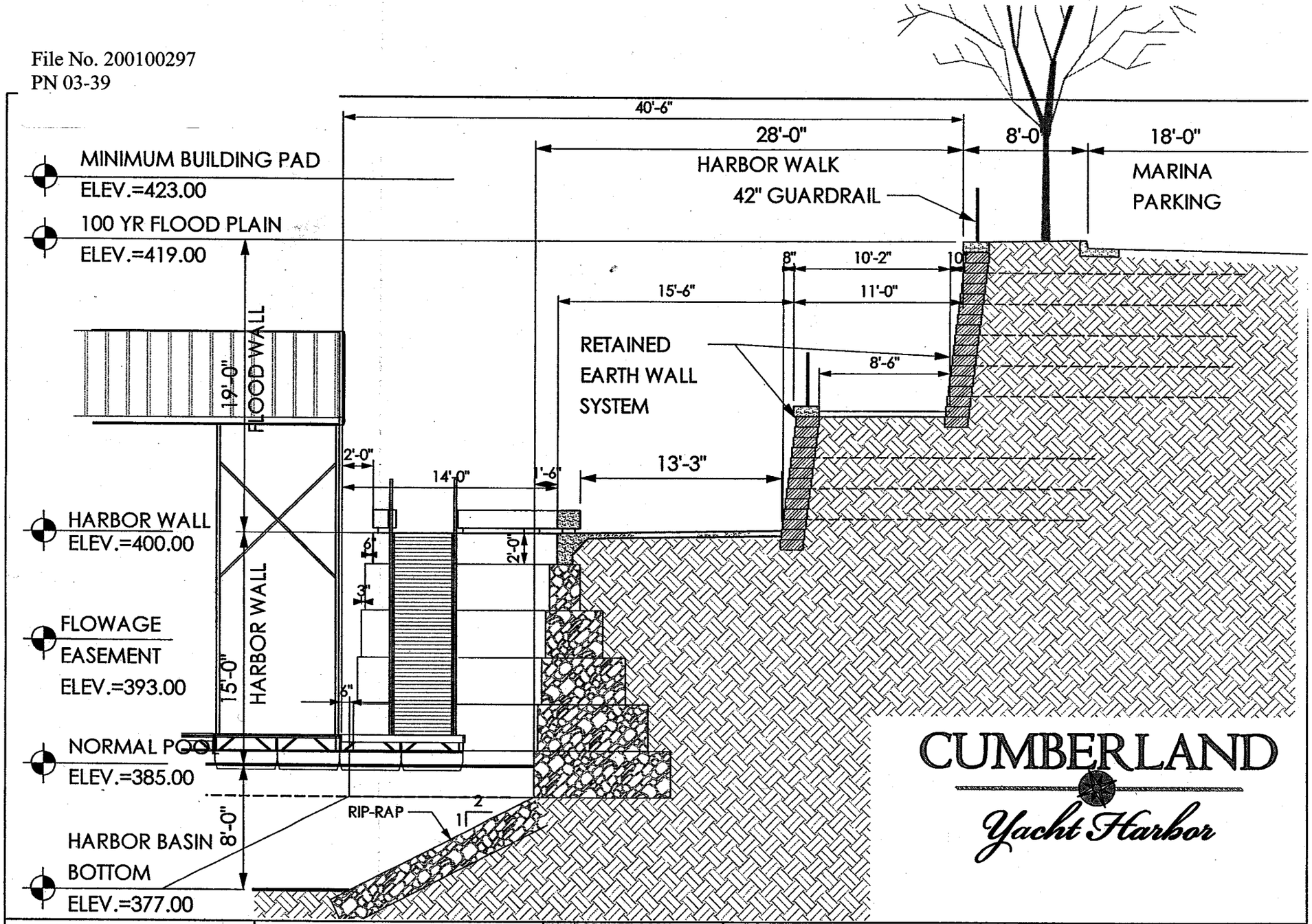
File No. 200100297
PN 03-39

CUMBERLAND Yacht Harbor



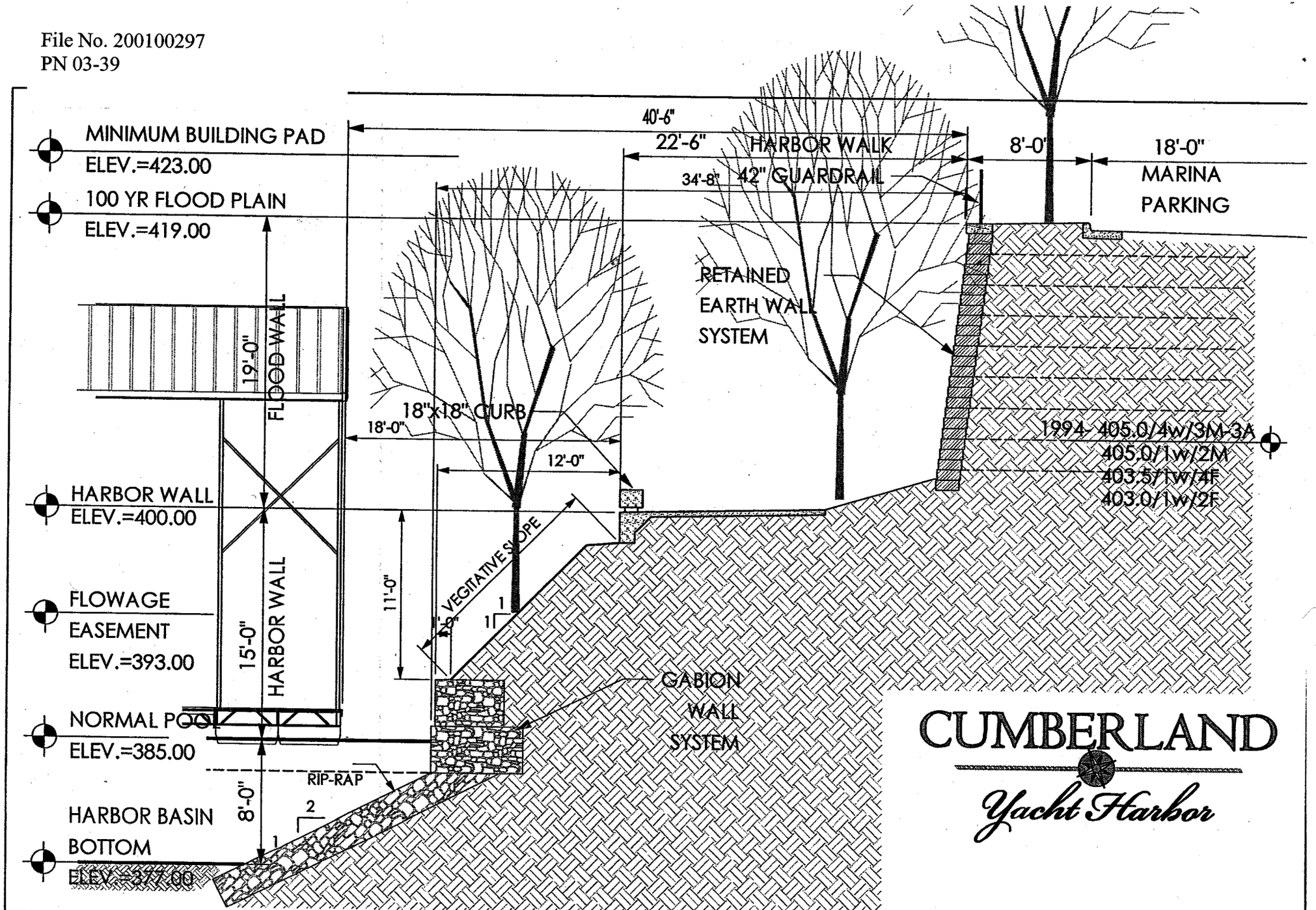
EXIBIT PREPARED BY:	APPLICANT'S NAME:	NAME OF WATER BODY:	PROJECT NAME:	EXIBIT TITLE:	DATE:
MANOUS CONSULTING & DESIGN V:(615)444-6207, F:(615)444-0853 POC: MARK KAWCZYNSKI, P.E. Mark@ManousDesign.com	CUMBERLAND YACHT HARBOR LLC.	CHEATHAM RESEVIOR RIVER MILE: CUMBELAND RIVER 194.5 COUNTY, STATE: DAVIDSON, TN	CUMBERLAND YACHT HARBOR	DREDGING & BANK STABLIZATION PLAN	3-07-2003 EXIBIT 6 of 26

File No. 200100297
PN 03-39



EXIBIT PREPARED BY: MANOUS CONSULTING & DESIGN V:(615)444-6207, F:(615)444-0853 POC: MARK KAWCZYNSKI, P.E. Mark@ManousDesign.com	APPLICANT'S NAME: CUMBERLAND YACHT HARBOR LLC.	NAME OF WATER BODY: CHEATHAM RESEVIOR RIVER MILE: CUMBELAND RIVER 194.5 COUNTY, STATE: DAVIDSON, TN	PROJECT NAME: CUMBERLAND YACHT HARBOR	EXIBIT TITLE: HARBOR WALK @ 400.00' @ RAMP TO PARKING	DATE: 3-07-2003 EXIBIT 12A of 26

File No. 200100297
PN 03-39

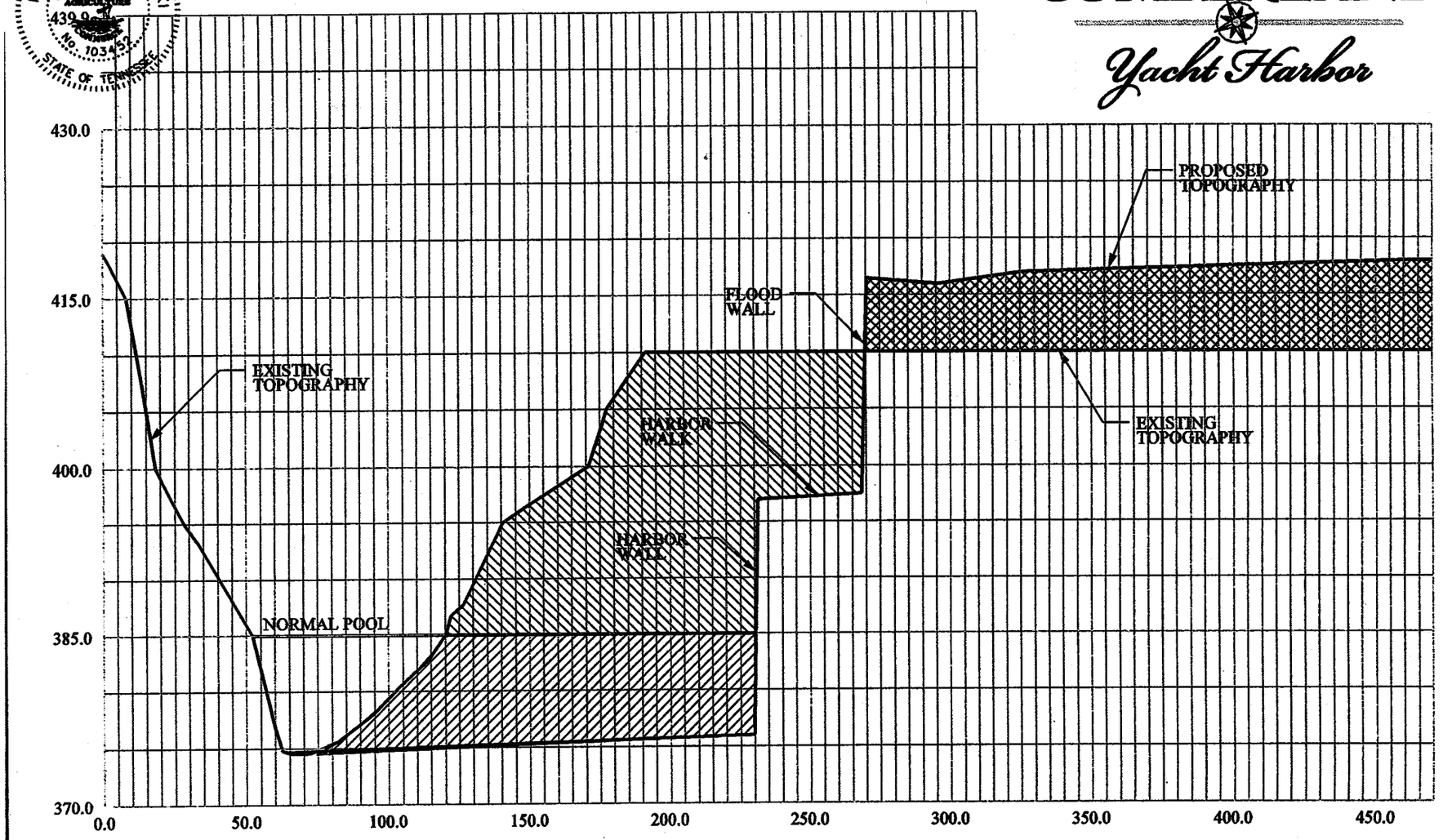


EXIBIT PREPARED BY: MANOUS CONSULTING & DESIGN V:(615)444-6207, F:(615)444-0853 POC: MARK KAWCZYNSKI, P.E. Mark@ManousDesign.com	APPLICANT'S NAME: CUMBERLAND YACHT HARBOR LLC.	NAME OF WATER BODY: CHEATHAM RESEVIOR RIVER MILE: CUMBELAND RIVER 194.5 COUNTY, STATE DAVIDSON, TN	PROJECT NAME: CUMBERLAND YACHT HARBOR	EXIBIT TITLE: HARBOR WALK @ 400.00' AND BIO REMEDIATION SLOPE	DATE: 3-07-2003 EXIBIT 12B of 26

File No. 200100297
PN 03-39

MARK D. KAWCZYNSKI
REGISTERED ENGINEER
AGRICULTURE
No. 103452
STATE OF TENNESSEE

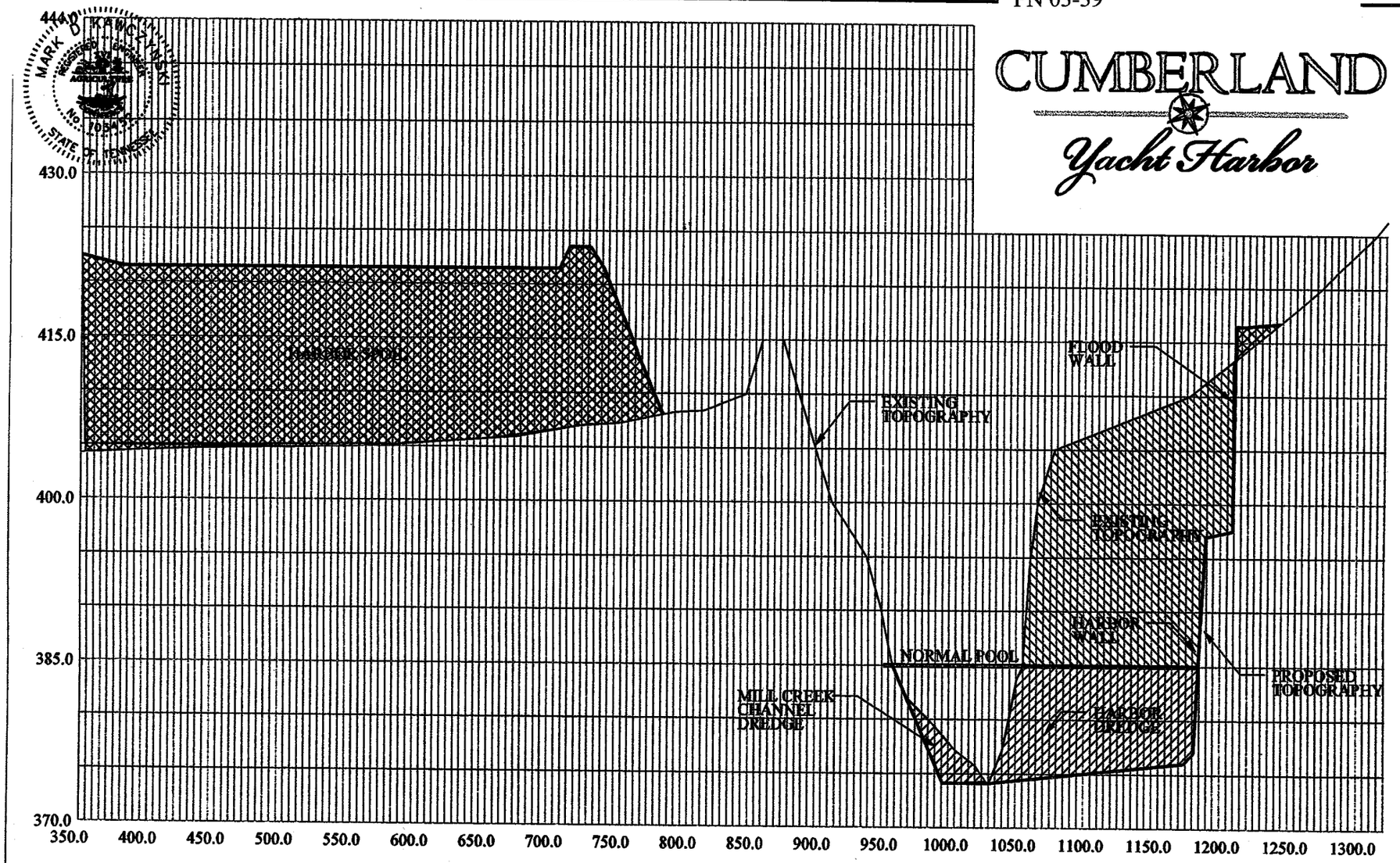
CUMBERLAND
Yacht Harbor



EXIBIT PREPARED BY: MANOUS CONSULTING & DESIGN V:(615)444-6207, F:(615)444-0853 POC: MARK KAWCZYNSKI, P.E. Mark@ManousDesign.com	APPLICANT'S NAME: CUMBERLAND YACHT HARBOR LLC	NAME OF WATER BODY: CHEATHAM RESERVIOR RIVER MILE: CUMBERLAND RIVER 194.5 COUNTY, STATE: DAVIDSON, TN	PROJECT NAME: CUMBERLAND YACHT HARBOR	EXIBIT TITLE: CHANNEL CROSS-SECTION A	DATE: 1-17-2003 EXIBIT 9 of 28

File No. 200100297
PN 03-39

CUMBERLAND Yacht Harbor



EXIBIT PREPARED BY: MANOUS CONSULTING & DESIGN V:(615)444-6207, F:(615)444-0853 POC: MARK KAWCZYNSKI, P.E. Mark@ManousDesign.com	APPLICANT'S NAME: CUMBERLAND YACHT HARBOR LLC	NAME OF WATER BODY: CHEATHAM RESERVIOR RIVER MILE: CUMBERLAND RIVER 194.5 COUNTY, STATE: DAVIDSON, TN	PROJECT NAME: CUMBERLAND YACHT HARBOR	EXIBIT TITLE: CHANNEL CROSS-SECTION B	DATE: 1-17-2003 EXIBIT 10 of 21

File No. 200100297
PN 03-39

CUMBERLAND
Yacht Harbor

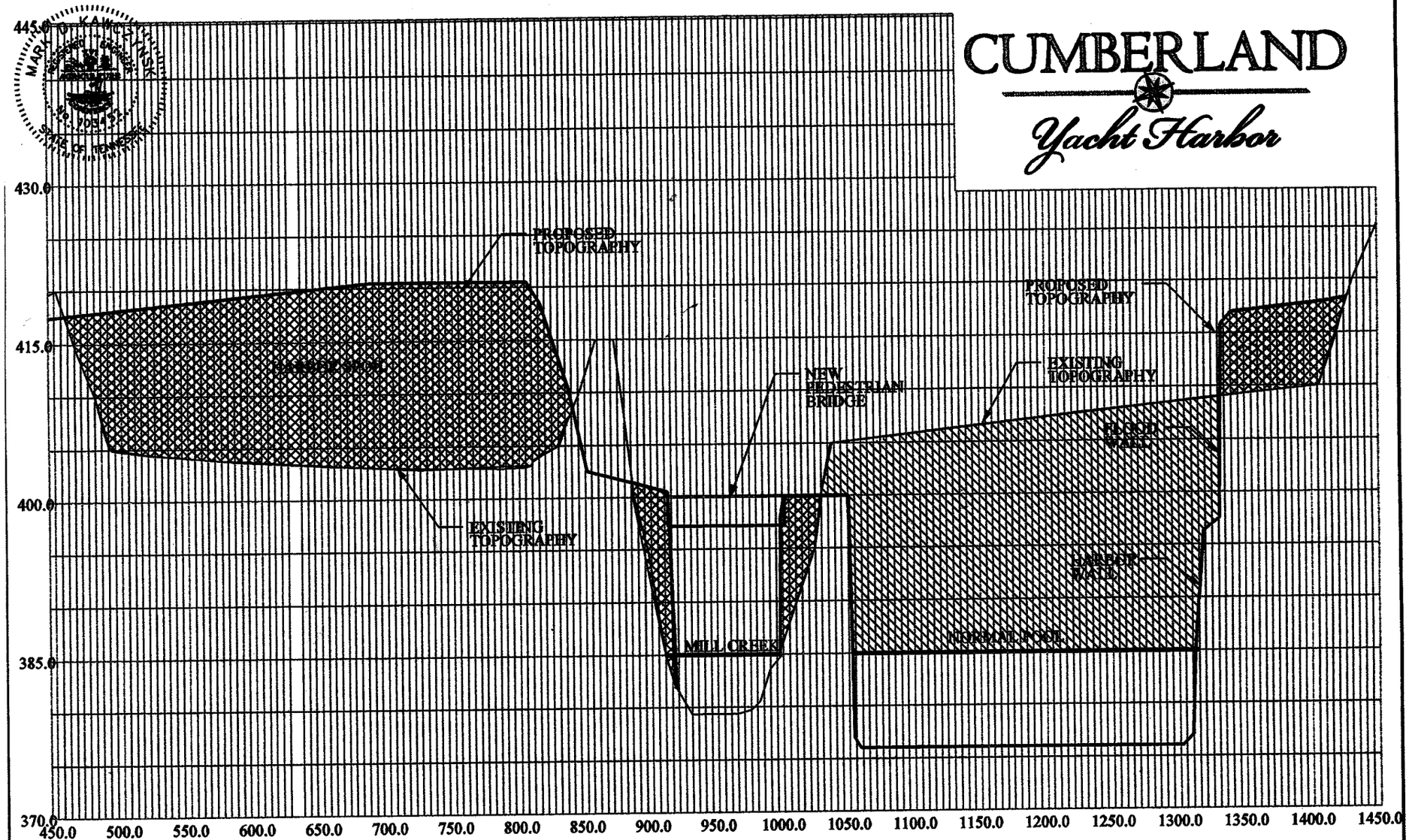
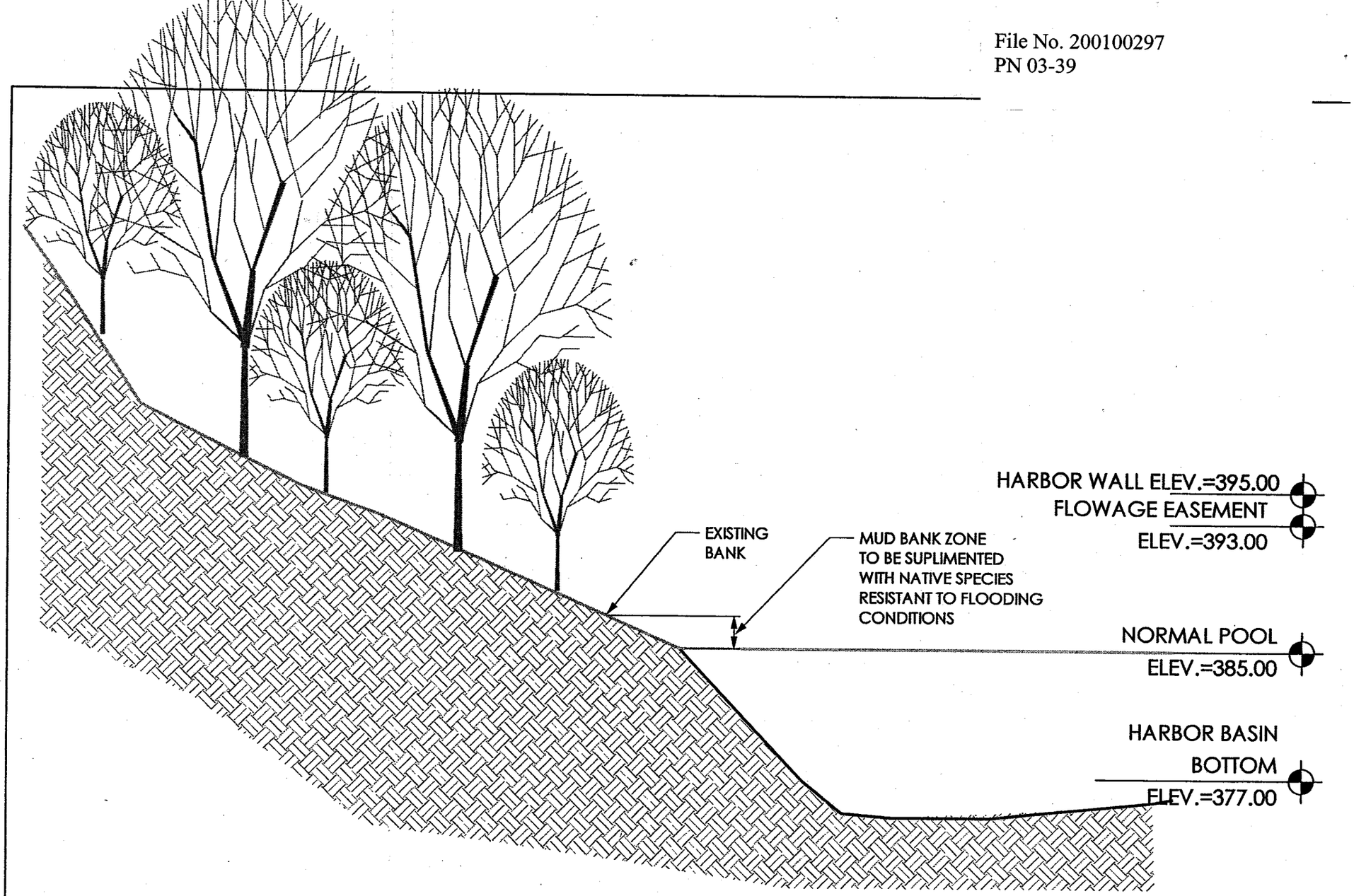


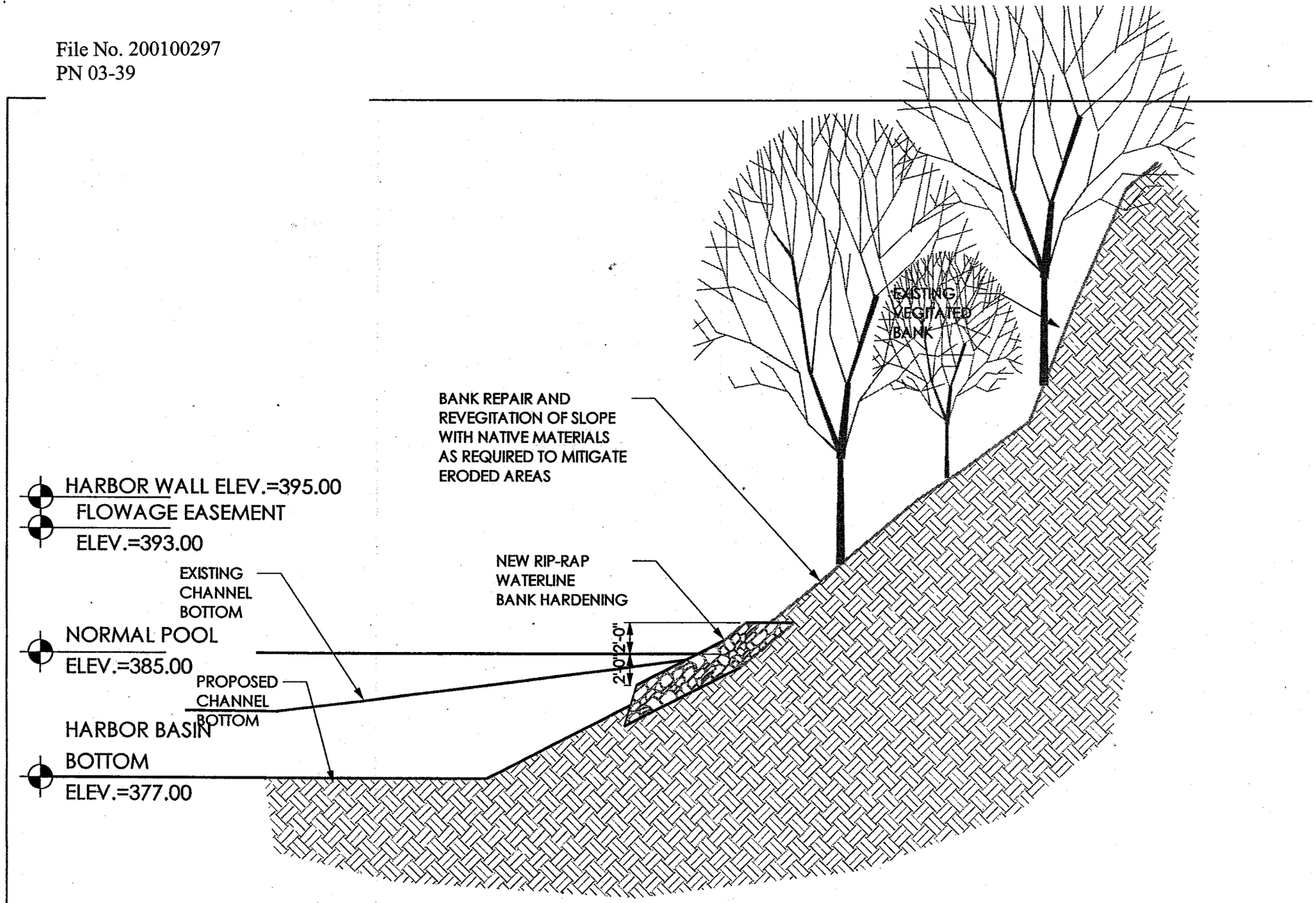
EXHIBIT PREPARED BY: MANOUS CONSULTING & DESIGN V:(615)444-6207, F:(615)444-0853 POC: MARK KAWCZYNSKI, P.E. Mark@ManousDesign.com	APPLICANT'S NAME: CUMBERLAND YACHT HARBOR LLC	NAME OF WATER BODY: CHEATHAM RESERVIOR RIVER MILE: CUMBERLAND RIVER 194.5 COUNTY, STATE: DAVIDSON, TN	PROJECT NAME: CUMBERLAND YACHT HARBOR	EXHIBIT TITLE: CHANNEL CROSS-SECTION C'	DATE: 1-17-2003 EXHIBIT 11 of 21

File No. 200100297
PN 03-39



EXIBIT PREPARED BY: MANOUS CONSULTING & DESIGN V:(615)444-6207, F:(615)444-0853 POC: MARK KAWCZYNSKI, P.E. Mark@ManousDesign.com	APPLICANT'S NAME: CUMBERLAND YACHT HARBOR LLC.	NAME OF WATER BODY: CHEATHAM RESEVIOR RIVER MILE: CUMBELAND RIVER 194.5 COUNTY, STATE: DAVIDSON, TN	PROJECT NAME: CUMBERLAND YACHT HARBOR	EXIBIT TITLE: BIO-REMEDIATION BANK HARDENING	DATE: 3-07-2003 EXIBIT 6B of 26

File No. 200100297
PN 03-39



EXIBIT PREPARED BY: MANOUS CONSULTING & DESIGN V:(615)444-6207, F:(615)444-0853 POC: MARK KAWCZYNSKI, P.E. Mark@ManousDesign.com	APPLICANT'S NAME: CUMBERLAND YACHT HARBOR LLC.	NAME OF WATER BODY: CHEATHAM RESEVIOR RIVER MILE: CUMBELAND RIVER 194.5 COUNTY, STATE DAVIDSON, TN	PROJECT NAME: CUMBERLAND YACHT HARBOR	EXIBIT TITLE: RIP-RAP BANK HARDENING	DATE: 3-07-2003 EXIBIT 6A of 2

File No. 200100297
PN 03-39

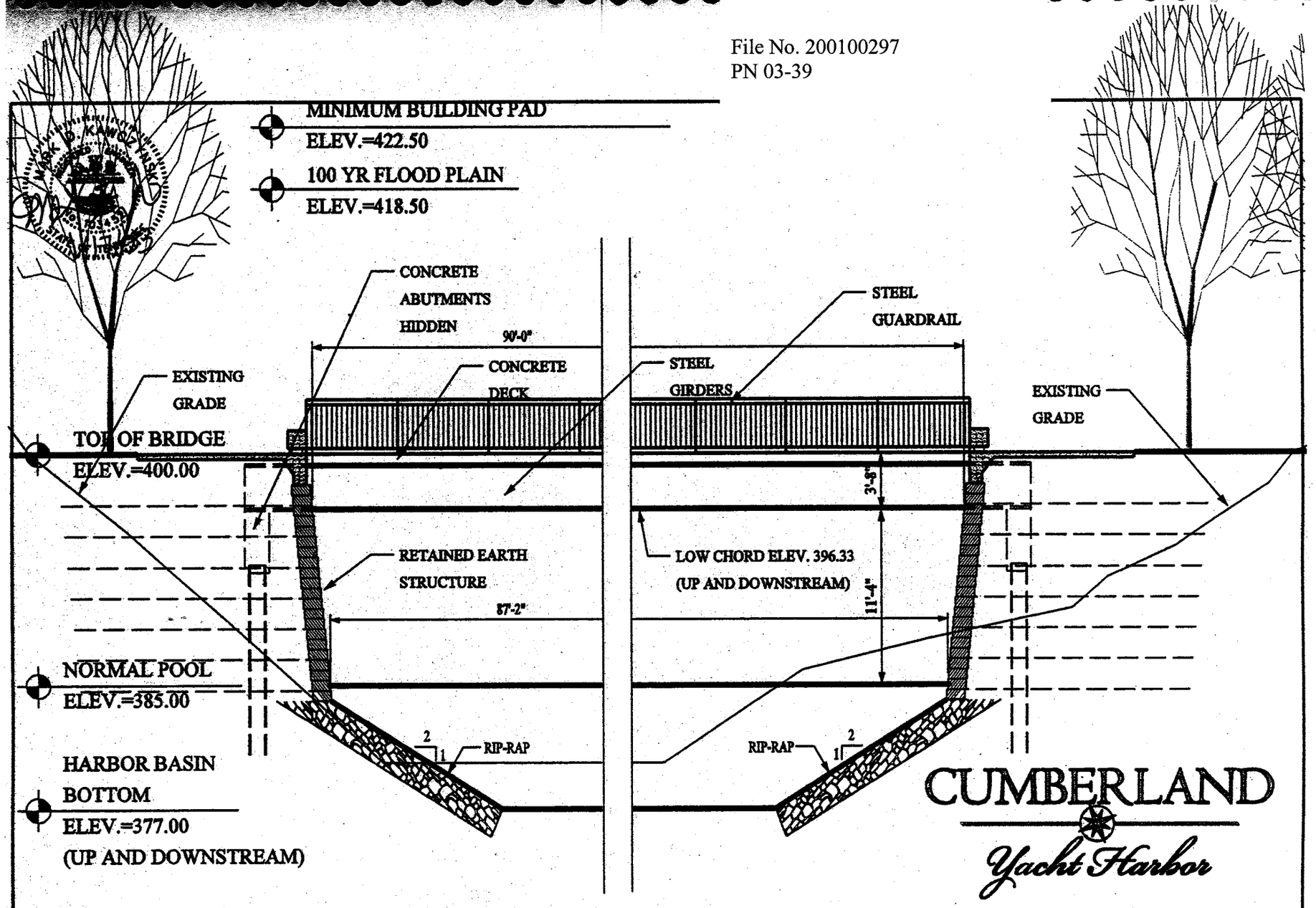
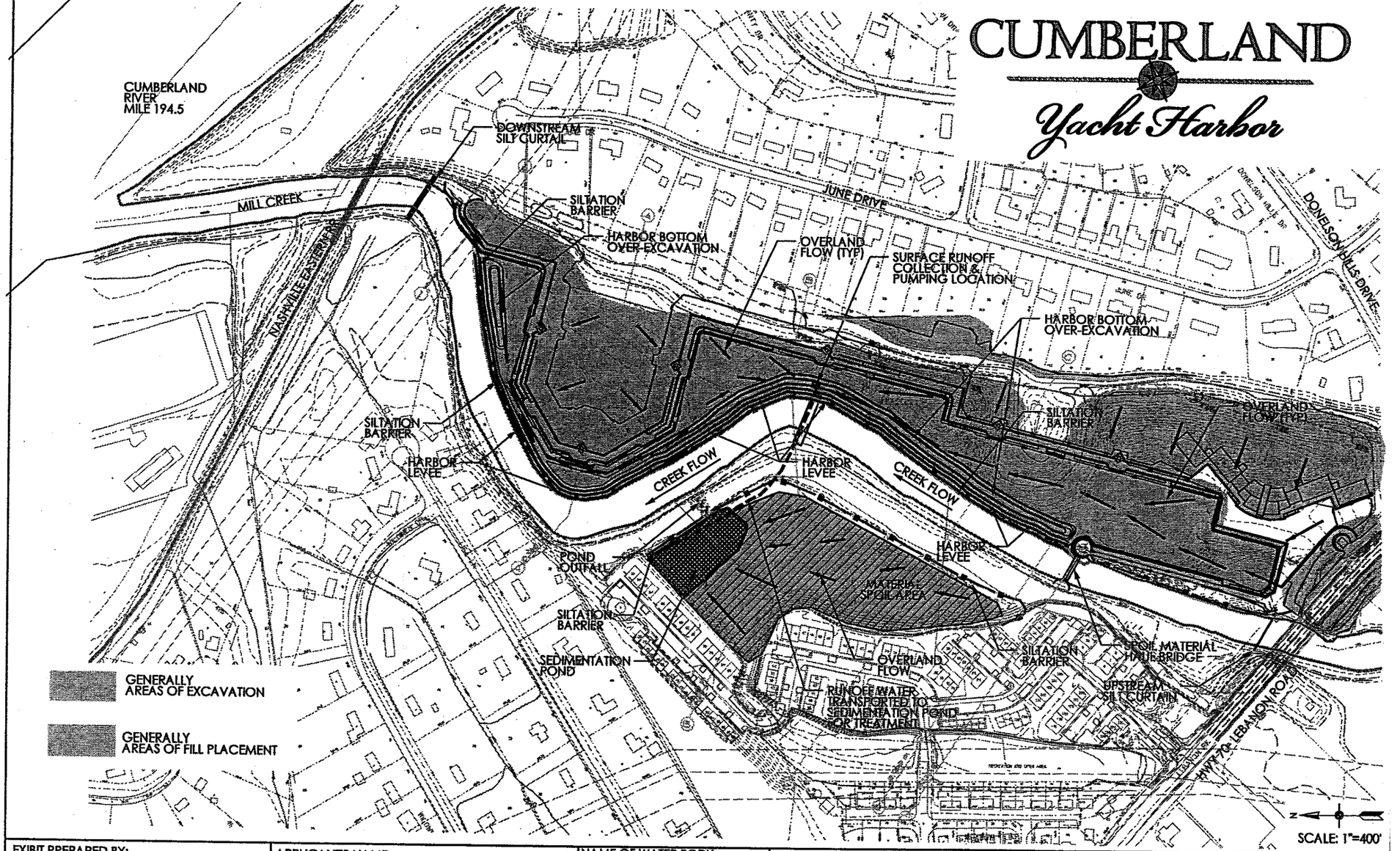


EXHIBIT PREPARED BY:	APPLICANT'S NAME:	NAME OF WATER BODY:	PROJECT NAME:	EXHIBIT TITLE:	DATE:
MANOUS CONSULTING & DESIGN V:(615)444-6207, F:(615)444-0853 POC: MARK KAWCZYNSKI, P.E. Mark@ManousDesign.com	CUMBERLAND YACHT HARBOR LLC	CHEATHAM RESERVIOR RIVER MILE: CUMBERLAND RIVER 194.5 COUNTY, STATE: DAVIDSON, TN	CUMBERLAND YACHT HARBOR	PEDESTRIAN BRIDGE CONCEPT SECTION	1-17-2003 EXIBIT d

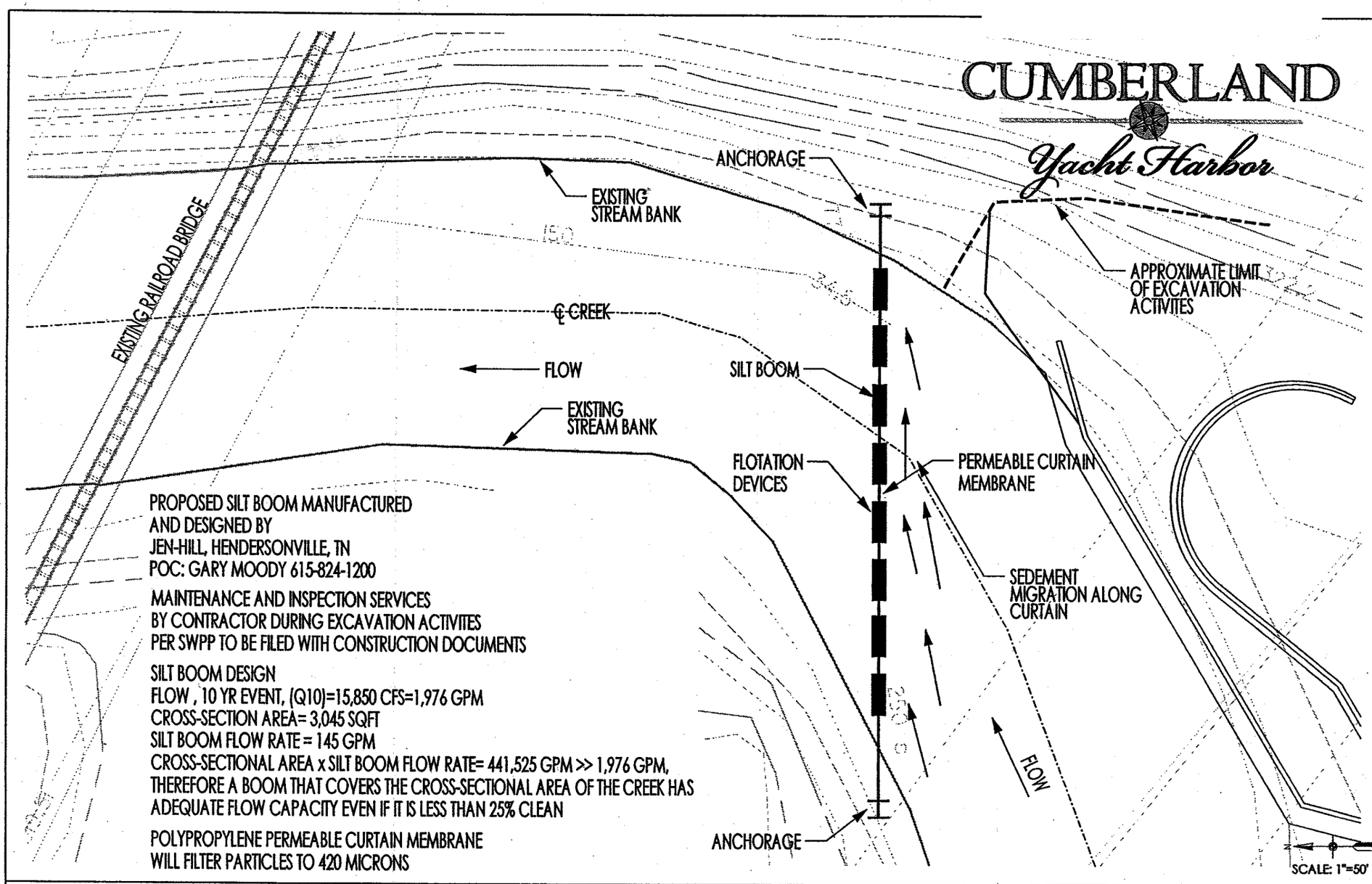
File No. 200100297
PN 03-39

CUMBERLAND
Yacht Harbor



EXIBIT PREPARED BY: MANOUS CONSULTING & DESIGN V:(615)444-6207, F:(615)444-0853 POC: MARK KAWCZYNSKI, P.E. Mark@ManousDesign.com	APPLICANT'S NAME: CUMBERLAND YACHT HARBOR LLC.	NAME OF WATER BODY: CHEATHAM RESEVIOR RIVER MILE: CUMBELAND RIVER 194.5 COUNTY, STATE: DAVIDSON, TN	PROJECT NAME: CUMBERLAND YACHT HARBOR	EXIBIT TITLE: CONSTRUCTION STORMWATER MANAGEMENT OVERVIEW PLAN	DATE: 3-07-2003 EXIBIT 16 of 26

File No. 200100297
PN 03-39



PROPOSED SILT BOOM MANUFACTURED
AND DESIGNED BY
JEN-HILL, HENDERSONVILLE, TN
POC: GARY MOODY 615-824-1200

MAINTENANCE AND INSPECTION SERVICES
BY CONTRACTOR DURING EXCAVATION ACTIVITES
PER SWPP TO BE FILED WITH CONSTRUCTION DOCUMENTS

SILT BOOM DESIGN
FLOW , 10 YR EVENT, (Q10)=15,850 CFS=1,976 GPM
CROSS-SECTION AREA= 3,045 SQFT
SILT BOOM FLOW RATE = 145 GPM
CROSS-SECTIONAL AREA x SILT BOOM FLOW RATE= 441,525 GPM >> 1,976 GPM,
THEREFORE A BOOM THAT COVERS THE CROSS-SECTIONAL AREA OF THE CREEK HAS
ADEQUATE FLOW CAPACITY EVEN IF IT IS LESS THAN 25% CLEAN

POLYPROPYLENE PERMEABLE CURTAIN MEMBRANE
WILL FILTER PARTICLES TO 420 MICRONS

EXIBIT PREPARED BY:	APPLICANT'S NAME:	NAME OF WATER BODY:	PROJECT NAME:	EXIBIT TITLE:	DATE:
MANOUS CONSULTING & DESIGN V:(615)444-6207, F:(615)444-0853 POC: MARK KAWCZYNSKI, P.E. Mark@ManousDesign.com	CUMBERLAND YACHT HARBOR LLC.	CHEATHAM RESEVIOR RIVER MILE: CUMBELAND RIVER 194.5 COUNTY, STATE: DAVIDSON, TN	CUMBERLAND YACHT HARBOR	DOWN STREAM SILT BOOM PLAN	3-7-2003 EXIBIT 16A of 2

FILE No. 20010029
PN 03-39

Mitigation of Riparian Conservation loss along the east side of Mill Creek.

This project represents the loss of approximately 2,900 lnft of mature riparian habitat along the east side of Mill Creek. Mitigation of the riparian habitat loss should address four basic issues: temperature, water quality, bank erosion and habitat. The following activities and proposed design features mitigate the loss of riparian area:

Temperature
The temperature of the water body typically affects the diversity of the aquatic life that the water body will support. The temperature of the water is partially controlled by the amount of sun shaded from the water surface. The tree cover along this section of Mill Creek is approximately 25% as determined by the included Aquatic Assessment Report. The proposed covered dockage and landscaping to be planted along the new harbor bank will maintain the existing cover percentage.
The water temperature of this section of Mill Creek is significantly affected by the power generation schedule of Old Hickory Dam approximately 20 miles upstream of the project location. As outlined in the Aquatic assessment Report, this section of Mill Creek is backwater of the Cheatham Reservoir.

Water Quality
The Riparian Area affects the water quality of the water body by providing a filtration strip to treat stormwater runoff entering the steam or lake. Development on this site will comply with Metro Nashville stormwater management regulations. The quality of stormwater runoff from the project will be mechanically treated to remove sedimentation and contaminates. Stormwater from off-site sources is typically overland flow which passes through a required 30' landscaping buffer. The buffer strip along the West side of the site will perform as the riparian area for off-site stormwater runoff. This project will help protect water quality on a portion of the Cumberland River by providing sanitary sewer pump-out services, trash collection and public restrooms to a length of the river not currently covered by these services. Water quality of the harbor basin will be addresses by general marina operations. Sewer pump-out services will be provided at all docks that support boats with holding tanks. The marina operator will maintain trash collection services. On-water boat repair will be restricted and monitored. Public restrooms will be available. On-water fueling operations will be according to EPA and NFPA.
This project will have an effect on the quality of the water on the Cumberland River. The public sewage pump out, trash collection and public restroom services are not now offered on a large section of the Cumberland River. Public Access to these services will encourage boaters to be responsible with waste disposal.

Bank Erosion
The riparian area's vegetative cover resists bank erosion and stream sedimentation by dissipating stormwater run-off energy and stream current energy. Vegetative cover at the water line along this section of Mill Creek is limited by daily fluctuations in the Cumberland River normal pool elevation. Rip-raping and bio-remediation activities associated with this project will harden the banks to this type of erosion. Bank hardening with also protect the banks from erosion caused by the additional boat traffic generated by the marina.

Riparian and Lake Habitat
The riparian area provides habitat for flora and fauna inhabiting the water's edge ecosystem. From the aquatic habitat perspective, this project represents a 12.8 acre increase in the type of aquatic habitat associated with this portion of Mill Creek. 8.6 acres of the property has been set aside for passive recreation and habitat conservation. Of the 8.6 acres, 6.1 acres is a public greenway and support areas.